

### **REMARKS**

Upon entry of this response, claims 1, 2, 4, 8-12, 41-48, and 50, and 52-60 will be pending in the application with claims 1, 8, 42, and 60 being the independent claims. Claim 51 is cancelled without prejudice to or disclaimer of the subject matter therein. Claims 1, 8, 42, and 52-57 are amended. Claim 60 is newly added and recites some of the features of cancelled claim 51. Applicants respectfully request reconsideration.

#### **Examiner Interview**

Applicants appreciate the courtesy offered by the Examiner in a telephone discussion on October 9, 2007 regarding the prior issued Office Action. As indicated on the Interview Summary, Applicants requested clarification and a reissuance of the prior issued Office Action. In addition, Applicants explained that some of the claims should be allowable over the cited art. One novel and patentable feature of the invention, but not the only novel and patentable feature of the invention, includes the elastic joint that both secures the joint and allows articulation.

#### **Compliance with 35 U.S.C. §103**

The Office Action indicated that claims 1, 2, 4, 8-12, 41-42, 50, 58, and 59 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,402,750 to Atkinson et al. ("Atkinson") in view of U.S. Patent No. 6,652,527 to Zucherman et al. ("Zucherman").

The Office Action also indicated that claims 42-48 and 51-57 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Atkinson in view of Zucherman and further in view of U.S. Patent Publication No. 2005/0101956 to Simonson.

#### **Prior Art**

As discussed in prior responses, the publication 2005/0101956 to Simonson does not qualify as prior art. Applicants presume that the Examiner is relying upon the teachings of the parent patent application to the Simonson publication. Nevertheless, Applicants respectfully

request that the Examiner so indicate by identifying a reference that properly qualifies as prior art.

Independent Claims 1 and 8

A. Prior Art That Fails to Consider, Teach, Suggest All the Claimed Features Fails to Establish Obviousness

Claim 1 now recites, among other features:

a joint component positioned between the first and second biocompatible attachment devices, the joint component being an elastic member that both secures the rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions to allow motion at the facet joint.

Neither Atkinson nor Zucherman, alone or in combination, teaches “a joint component being an elastic member that both secures rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions to allow motion at the facet joint.”

The Office Action states that Zucherman discloses a joint component. However, the joint of Zucherman is not “an elastic member that ... elastically flexes in a manner that permits relative movement between the rigid portions to allow motion at the facet joint.” Instead, it is a rigid joint where first and second connection rods 108, 114 rotate about a bolt 103 relative to the spacer. Zucherman, Col. 4, lines 23-27. There is no component that elastically flexes. Further, Applicants agree with the Office Action indication that Atkinson does not include a joint as claimed. Office Action, p.3.

Applicants acknowledge that with respect to other claims, the Office Action relies upon Simonson for a teaching of an elastic member. However, Simonson would not correct the deficiency of Atkinson and Zucherman with respect to claim 1. Simonson discloses an elastic stop that limits articulation of a pivotable screw head. Applying the pivotable screw head stop

would not change the deficiencies of Atkinson and Zucherman because employing an elastic articulation limiter at the joint of Zucherman would still not result in “a joint component being an elastic member that both secures rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions to allow motion at the facet joint.”

Therefore, neither the combination of Atkinson and Zucherman as applied in the Office Action nor the combination of Atkinson, Zucherman, and Simonson establishes a *prima facie* case of obviousness with respect to claim 1. For at least this reason, Applicants submit that claim 1 is in condition for allowance.

Claim 8 recites a feature similar to that discussed above with respect to claim 1. In particular, claim 8 recites:

the joint component comprises an elastic member that both secures rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions and is configured to allow motion at the facet joint.

Accordingly, for the reasons discussed above with respect to claim 1, claim 8 also is in a condition for allowance.

B. Prior Art That Teaches Away From the Claimed Invention Cannot be Used to Establish Obviousness

KSR maintained the long-standing principal that “when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious.” *KSR Int’l. Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740 (2007).

The combination of Atkinson and Zucherman fail to establish a *prima facie* case of obviousness with regard to amended claim 1 and amended claim 8 because Atkinson teaches away from a flexible device having a joint. Atkinson explains that its dynamic device 100 “preferably operates with substantially linear displacement substantially parallel to the axis of curvature 60.” Atkinson, column 9, lines 62-64. It discusses at length calculating its forces

using linear models. See Atkinson, column 10, lines 20-49. Even when discussing a leaf spring embodiment, it states that the “radius or axis of curvature of the leaf spring 142 is preferably maximized such that displacement of the attachment members 144 is substantially linear.” Atkinson, column 18, lines 22-25. Accordingly, Atkinson teaches away from a flexible device having a joint.

Since it is well recognized that teaching away from the claimed invention is a *per se* demonstration of lack of *prima facie* obviousness, Applicants submit that the Office Action has not established a *prima facie* conclusion of obviousness. Thus, Applicants submit that a *prima facie* case of obviousness has not been established, and the rejection under 35 U.S.C. § 103 should be withdrawn.

C. The References are Not Properly Combinable if Their Intended  
Function is Destroyed

*KSR* teaches that when combining elements from different references, it is important to determine whether the element is performing “the same function it had been known to perform.” *KSR* at 1740.

The combination of Atkinson and Zucherman fail to establish a *prima facie* case of obviousness with regard to claims 1 and 8 because if combined, Zucherman’s intended function is destroyed. Zucherman appears to provide a “method and apparatus for assisting in the fusing together of vertebral bodies of the spine.” Zucherman, col. 2, lines 13-15. Its teachings and Objects include, among other things, rigid immobilization. Zucherman, col. 2, line 34-col. 3, line 13. Accordingly, implementing a system as disclosed in Zucherman in the dynamic device in Atkinson would destroy Zucherman’s function or ability to eliminate movement between vertebrae. Therefore, the combination of Atkinson and Zucherman appears to be improper and should not render claims 1 or 8 unpatentable.

Independent Claim 42

Claim 42 is amended to be written in independent form. It recites, among other features:

a flexible member attached to the first and second biocompatible attachment devices configured in a manner to allow motion at the facet joint

...

wherein the flexible member includes:

...

an elastic material disposed through both the first and second openings in a manner that dynamically secures the rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions; and

a connector covering the first joint element and the second joint element, wherein the connector comprises the elastic material.

Claim 42 should be allowable over the cited combination because none of the references, alone or in combination consider, teach, or suggest a flexible member as claimed. For example none of Atkinson, Zucherman, nor Simonson considers, teaches, or suggests first and second components with first and second joint elements with “an elastic material disposed through both the first and second openings in a manner that dynamically secures the rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions.” Zucherman does teach connection rods 108, 114 attached by bolt 103. But the bolt is not “an elastic material disposed through both the first and second openings in a manner that dynamically both secures rigid portions together and elastically flexes” as claimed. Further, the bolt of Zucherman does not include “a connector covering the first joint element and the second joint element, wherein the connector comprises the elastic material.”

Simonson discloses an elastic stop. The portion identified by the Examiner states:

Structure can be provided for limiting the angulation of the rod

connector relative to the screw. This structure can provide increasing resistance as the degree of angulation increases. The structure can comprise a stop on at least one of the connector and the screw. The stop can comprise an elastic material.

Simonson, para. [0020].

However, even in combination with the bolt of Zucherman, this is not a teaching of “an elastic material disposed through both the first and second openings in a manner that dynamically secures the rigid portions together and elastically flexes in a manner that permits relative movement between the rigid portions,” as recited in claim 42. The stop that may comprise an elastic material is not configured in any manner like that claimed. Furthermore, to apply an elastic material into the joint of Zucherman defeats the intended purpose of Zucherman, which is to “rigidly” secure the device in place.

In addition, the Office Action fails to identify any teaching in any of the applied references of “a connector covering the first joint element and the second joint element, wherein the connector comprises the elastic material,” as recited in claim 42. Further, none of the references consider, teach, or suggest such features. Accordingly, Applicants submit that claim 42 is allowable over the combination of references.

#### Independent Claim 60

Claim 60 is newly added and recites some but not all of the features of former claim 51. It recites, among other features, a flexible posterior device comprising:

a first element associated with the first elongated body, the first element having a first opening, and

a second element associated with the second elongated body, the second element having a second opening, wherein the second element is coupled with the first element by an elastic material disposed in both the first and second openings; and

a connector covering the first element and the second element wherein the connector comprises the elastic material.

Claim 60 should be allowable over the cited combination because none of the references, alone or in combination consider, teach, or suggest first and second components with first and second joint elements with first and second elements having respective first and second openings “wherein the second element is coupled with the first element by an elastic material disposed in both the first and second openings,” and including “a connector covering the first element and the second element wherein the connector comprises the elastic material,” as recited in claim 60. Accordingly, Applicants submit that claim 60 is allowable over the combination of references.

#### Dependent Claims

Claims 2, 4, 41, and 59, claims 9-12 50, and 58, claims 43-48, and claims 52-57 respectively depend from claims 1, 8, 42, and 60 and also are believed to be distinct from the art of record, for example for the same reasons discussed above with respect to their respective independent claims. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of these claims.

#### Conclusion

For at least the reasons set forth above, Applicants respectfully request that the Examiner reconsider and issue a formal notice of allowance. If the Examiner determines that a telephone discussion with the undersigned would further prosecution of the application, the Examiner is invited to telephone the undersigned at 972-739-6969.

The Office Action and other prior Office Actions contain characterizations of the claims and the related art to which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

Please grant any extension of time required to enter this response and charge any additional fees required by this paper to our Deposit Account No. 08-1394.

Respectfully submitted,



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